

Utah Department of Natural Resources



Forestry, Fire and Sovereign Lands

Geological Survey

Oil, Gas and Mining

Michael R. Styler Executive Director

Parks and Recreation

Water Resources

Water Rights

Wildlife Resources

Utah Division of Oil, Gas, and Mining



Oil and Gas

Coal

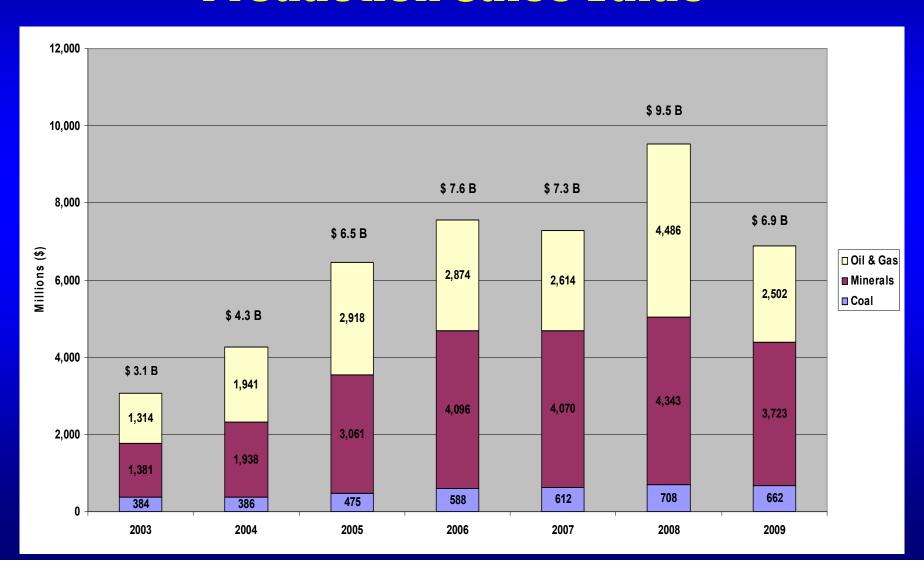
John R. Baza Director

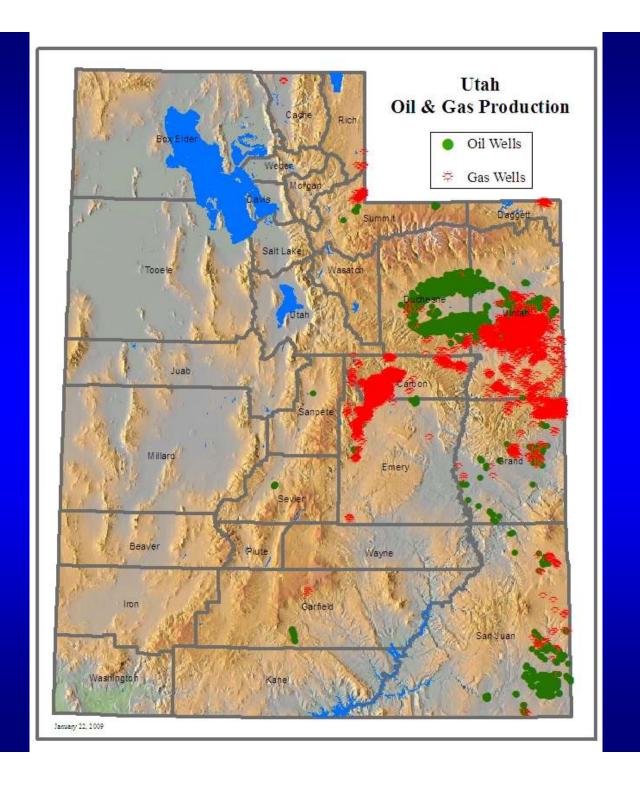
Minerals

Abandoned Mine Reclamation Board of Oil, Gas and Mining

Douglas E. Johnson, Chair Ruland J. Gill Jake Y. Harouny James T. Jensen Kelly L. Payne Samuel C. Quigley Jean Semborski

Utah Extractive Industries Production Sales Value



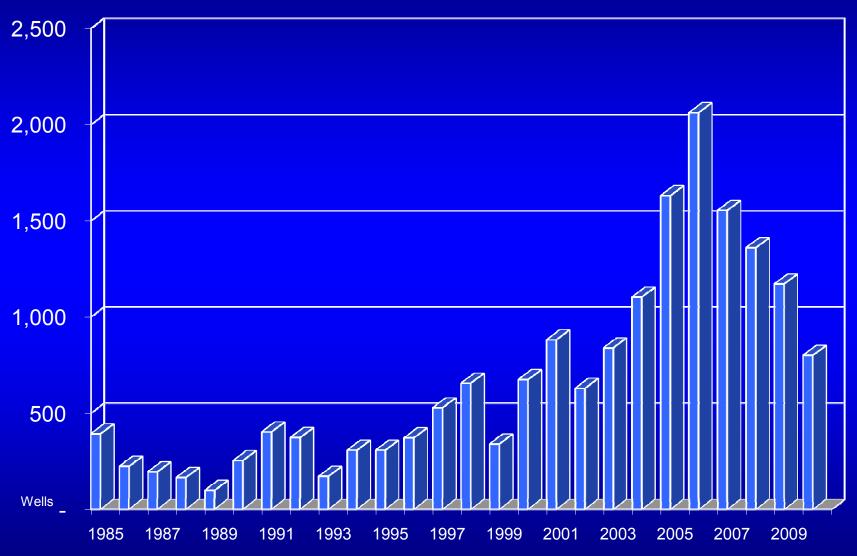


Petroleum Price Volatility

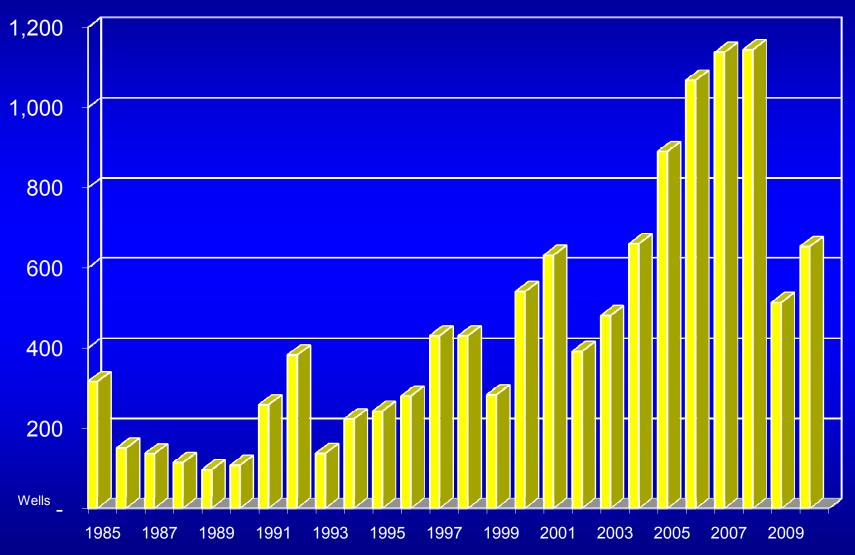
Commodity	12/31/08	2009 High	2009 Low	12/31/09
Crude oil, \$/bbl (WTI)	44.60	81.37	33.98	79.36
Natural gas, \$/MCF (Opal, WY)	4.66	5.84	1.32	5.58

Current Prices as of 9/17/10: Crude oil = 73.66 /bbl, Natural gas = 3.76 /MCF

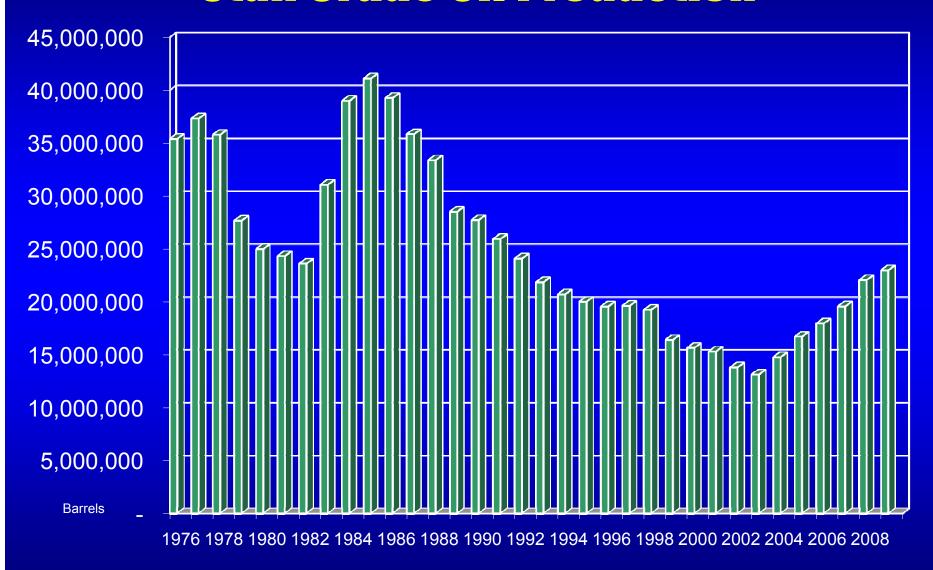
Utah Applications for Permit To Drill



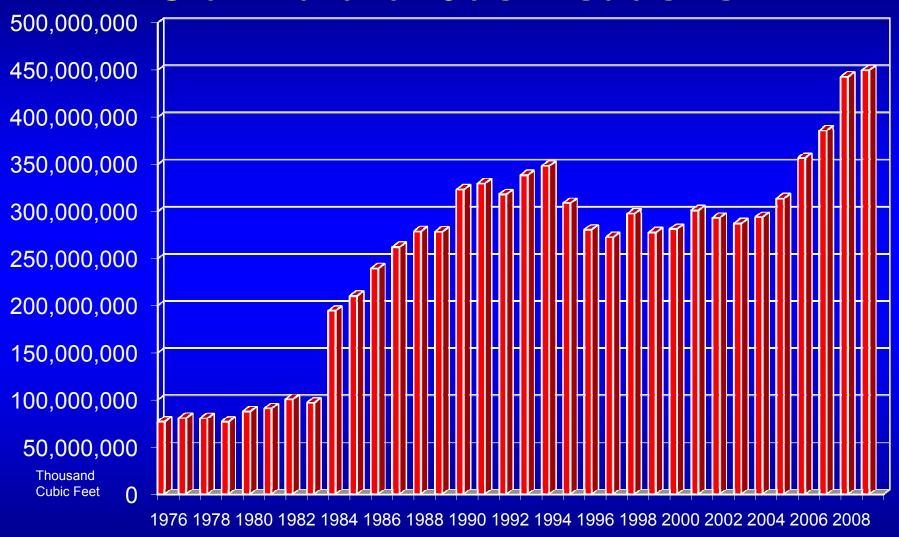
Utah Drilling Commenced



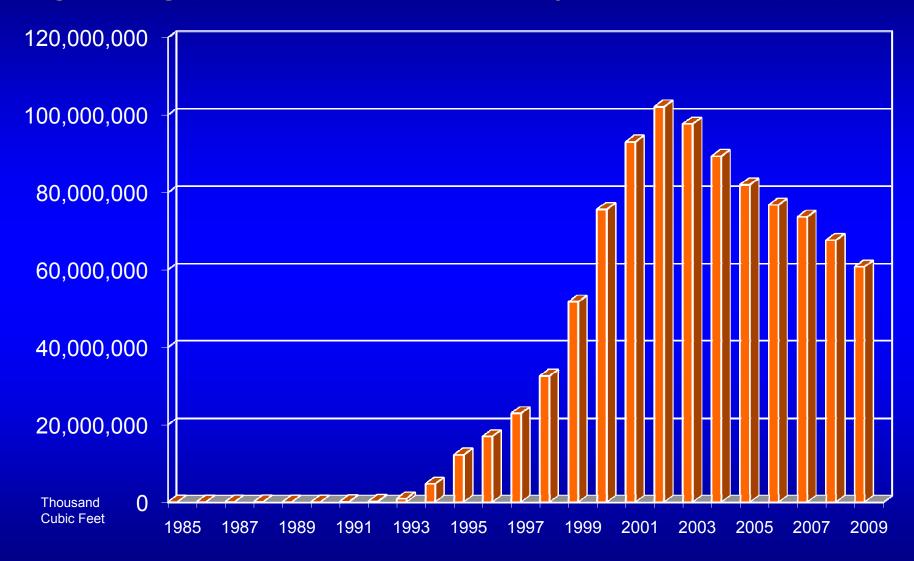
Utah Crude Oil Production



Utah Natural Gas Production

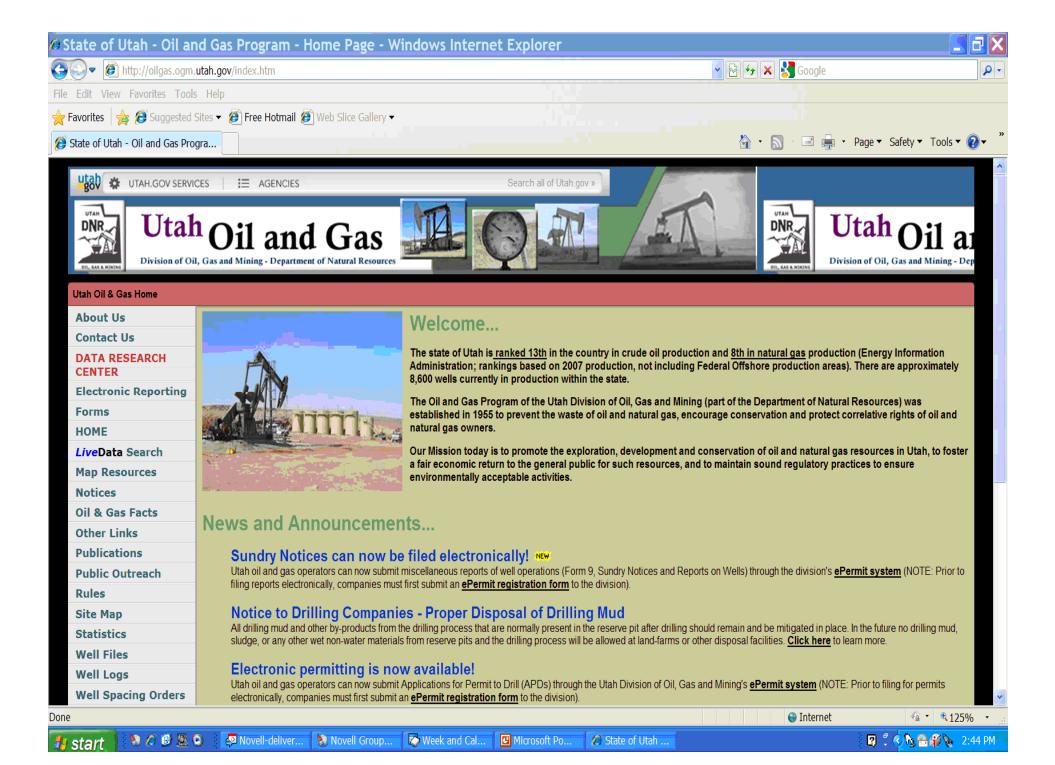


Utah Coalbed Methane Gas Production



Where is the oil and gas activity?

- 50.8% in Uintah County (natural gas)
- 44.7% in Duchesne County (Black/Yellow Wax oil)
- 4.4% in all other counties
- Deep gas development in eastern Carbon Co. (West Tavaputs/Nine Mile Canyon)
- Continuing central Utah development (Covenant field was 13.3% of state's oil production in 2009)
- Potential 10-acre and 20-acre development for certain oil and gas fields in the Uinta Basin



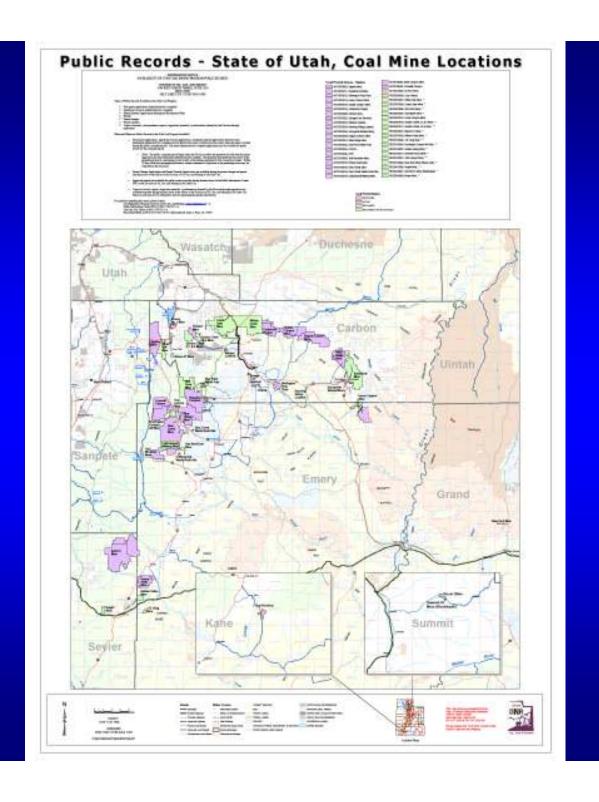
Coal

- Utah's 9 producing coal mines (7 companies) are located along the Book Cliffs and in the Wasatch Plateau – Carbon, Emery, and Sevier Counties
- 2009 coal production = 21.9 million tons*
- 9.7% decrease in production compared to 2008*
- Forecast for 2010 coal production = 19.1 million tons*
- Coal accounts for 82.1% of Utah's electrical generation (natural gas provides 14.8%)*

*From Utah Geological Survey, Coal Report – 2009 Advance Tables

Coal (cont.)

- Lila Canyon coal mine started producing coal in May 2010
- On August 3rd, BOGM issued decision in SUWA protest of the Coal Hollow mine in Kane County proposed by Alton Coal Development LLC – DOGM permit approval is upheld



Minerals

- Active mineral mines: 107 large and 188 small mines
- Estimated value of 2009 non-fuel mineral production – \$3.7 billion*
 - Base metals \$2.13 billion (-26%)*
 - Industrial minerals \$955 million (-9%)*
 - Precious metals \$635 million (+63%)*
- Ranked 3rd nationally in 2009 non-fuel production*

^{*}From Utah Geological Survey, 2009 Summary of Mineral Activity in Utah

Minerals (cont.)

- Copper Bingham Canyon (Salt Lake County) and Lisbon Valley (San Juan County) mines; limited activity in Beaver County
- Other minerals beryllium, molybdenum, gypsum, magnesium, salts, potash
- Construction materials residential construction down, but road material is up (related to stimulus funds)
- Energy related:
 - Uranium slowed down from prior years, but recent price increases have significantly increased interest and activity
 - Oil shale/tar sands still steady interest, but commodity price controls activity

Current/Recent Minerals News

- 2009 approval of PR Springs tar sands operation has been affirmed by director
- Red Leaf Resources (oil shale) is seeking to modify their permit to enable expansion
- White Canyon began producing from the Daneros uranium mine in late 2009
- CML Metals Corp. has restarted operations at the Iron Mountain mine west of Cedar City
- Chief Consolidated Mining Corp. intends to reopen the Burgin Extension silver mine near Eureka
- Rio Tinto plans to construct a molybdenum autoclave facility in Magna

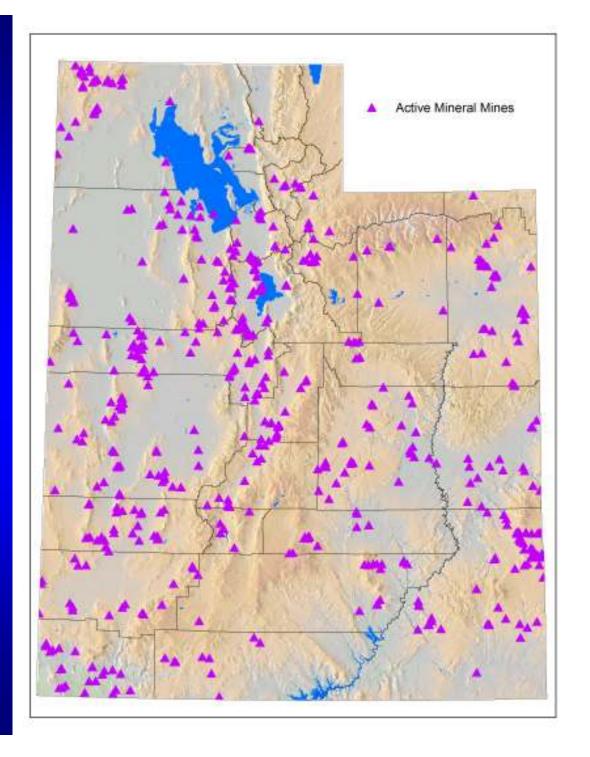
Metal Prices

Commodity	Price Change*	
Copper	20%	
Molybdenum	-21%	
Gold	27%	
Silver	27%	
Uranium	-2%	
Zinc	16%	
Lead	16%	
Nickel	11%	
Iron Ore Pellets	49%	
Aluminum	14%	
Base Metal Index	17%	

^{*}Approximate change from August 2009 to August 2010

Minerals Program

- Exploration
- Small mine less than 5 acres
- Large mines 5 acres or more



Abandoned Mine Reclamation

- Secure areas of legacy mining activity from ongoing hazards
- Mine closures, percentage of hazard areas secured:

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FY2007 120 13.0
FY2008 382 13.1
FY2009 186 13.2
FY2010 139 15.2
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 Outreach and educational activities – school workbooks, video distribution, calendars and other materials, public event exhibits, public meetings

Items of Interest

Coal

- Timeliness of permitting actions
- Deep coal development
- Surface and ground water impacts
- Remaining life and reserves
- Coal and coal waste processing facilities

Minerals

- Small mine bonding
- Hard rock mining legislation (federal)
- Hydrocarbon mining oil shale, tar sands

Items of Interest (cont.)

- Oil and Gas
 - Higher density drilling
 - Surface and wildlife habitat impact
 - Air quality
 - Produced water management
 - Hydraulic fracturing
 - Shale gas development
- Common
 - Federal land access
 - Split estate surface owner conflicts
 - Previously undeveloped lands
 - Potential sage grouse listing
 - Nuisance concerns noise, lighting, odors, dust
 - Transportation and infrastructure
 - Historic and cultural resources

U.S. DOI – BLM Public Land Statistics 2009

State	Land Total (mil. acres)	Fed. Mineral %
NV	70.26	83.5
ID	52.93	69.0
UT	<i>52.70</i>	66.8
WY	62.34	66.7
AK	365.48	64.8
OR	61.60	55.0
AZ	72.69	49.3
CA	100.21	47.4
NM	77.77	46.3
СО	66.49	43.6

Other public land states listed in Table 1-3 of referenced report: HI, KS, MT, NE, ND, OK, SD, TX, WA, and Eastern States

